

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

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MAR 29 2005

U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte SARATH KRISHNASWAMY and PATRICK GUINEY

Appeal No. 2005-0860  
Application No. 09/363,728

ON BRIEF

Before FRANKFORT, MCQUADE and NASE, Administrative Patent Judges.  
MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Sarath Krishnaswamy et al. appeal from the final rejection of claims 1 through 6, all of the claims pending in the application.

THE INVENTION

The invention relates to an analyte testing system. Representative claims 1, 3 and 4 read as follows:

1. A hand-held analyte test instrument comprising:

a housing;

a barcode reader disposed in the housing for scanning a barcode associated with a test strip configured to receive an analyte;

a user interface capable of activating said barcode reader, said user interface further comprising a numeric keypad and at least one function button, said at least one function button capable of carrying out at least one of the functions of activating/deactivating power, selecting test or menu modes, editing entries, terminating entries, and activating a barcode reader as a substitute for numerical entry;

a port disposed in the housing for receiving the test strip;

electronic circuitry in electrical communication with the port for processing an analyte signal received from the test strip and generating analyte data therefrom;

a display in electrical communication with the circuitry for displaying certain analyte data; and

a connector in electrical communication with the circuitry and electrically connectable to a host computer via a data communications network, wherein the circuitry automatically uploads the analyte data to the host computer upon connection thereto.

3. A docking station for receiving a hand-held analyte test instrument, the docking station comprising:

a connector electrically connectable to the instrument for receiving analyte data therefrom;

a switch in electrical communication with the connector;

a first data port in electrical communication with the switch and being electrically connectable to a computer;

a second data port in electrical communication with the switch and being electrically connectable to a peripheral device; and

a control mechanism for controlling the switch to selectively pass the analyte data to the computer via the first data port or to the peripheral device via the second data port; said docking station being configured to pass data between said analyte test instrument and said first data port when said docking station is in a default condition, and

circuitry to prevent overcharging.

4. A method of managing data for a plurality of analyte test instruments connected to a data communication network comprising the steps of:

detecting via a host computer the connection of each analyte test instrument of said plurality of analyte test instruments to the data communication network, each of said analyte test instruments of said plurality of analyte test instruments including a test strip port, which accepts test strips for determining the level of analyte in a sample taken from a patient;

uploading data received from each analyte test instrument of said plurality of analyte test instruments to the host computer; and

processing the uploaded data on the host computer for operator review; and downloading configuration data from the host computer to each analyte test instrument of said plurality of analyte test instruments, the downloaded data comprising instrument-specific setup and control data.

#### THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Davis (Davis '943)	5,052,943	Oct. 01, 1991
Cheung et al. (Cheung)	5,074,977	Dec. 24, 1991
Brown	5,307,263	Apr. 26, 1994
Koenck et al. (Koenck)	5,324,925	Jun. 28, 1994
Bocker et al. (Bocker)	5,507,288	Apr. 16, 1996
Cargin, Jr. et al. (Cargin)	5,602,456	Feb. 11, 1997
Davis et al. (Davis '966)	5,828,966	Oct. 27, 1998

THE REJECTIONS

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bocker in view of Cheung.

Claims 2, 5 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bocker in view of Cargin.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Davis '943 in view of Koenck and Davis '966.

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Cheung.

Attention is directed to the brief (filed June 30, 2003) and answer (mailed November 4, 2003) for the respective positions of the appellants and examiner regarding the merits of these rejections.

DISCUSSION

I. The 35 U.S.C. § 103(a) rejection of claim 1 as being unpatentable over Bocker in view of Cheung

Bocker discloses "an analytical system for monitoring a substance to be analyzed (analyte) which is present in the blood of a patient" (column 1, lines 8 through 10). The system includes a handheld central unit 3 comprising a keypad 20, a display 21, a test duct 17 for receiving analyte test strips 13, electronics 23 for measuring changes in the test strips reflecting the concentration of the analyte in the blood, a

micro-computer 25 including electronics 24 for computing the concentration of the analyte, a data memory 26, a reader 28 for scanning bar codes affixed to the test strips and an interface for transferring data to a PC. Bocker's rather brief description of the keypad 20 indicates that it serves merely to "operate" the central unit 3 (see column 5, lines 42 and 43; and Figure 1).

The examiner acknowledges (see page 4 in the answer) that Bocker lacks response to the limitation in claim 1 requiring the keypad to be a "numeric" keypad. To supply this deficiency, the examiner turns to Cheung.

Cheung discloses a digital biosensor (see Figure 2) similar in many respects to the analyte monitor disclosed by Bocker. As with Bocker, the reference appears to describe the keypad component of the biosensor only in terms of inputting operating instructions (see, for example, column 3, lines 15 through 19; column 9, lines 55 through 65; and column 10, lines 46 through 48). The examiner has found that the keypad is numeric (see page 9 in the answer), but has not pointed to any specific teaching, and none is apparent, which supports this finding. Hence, even if the examiner's conclusion that it would have been obvious "to incorporate the conventional keypad as taught by Cheung et al into the teachings of Bocker" (answer, page 4) is accepted at

face value, it would not result in the subject matter recited in claim 1.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claim 1 as being unpatentable over Bocker in view of Cheung.

II. The 35 U.S.C. § 103(a) rejection of claims 2, 5 and 6 as being unpatentable over Bocker in view of Cargin

Independent claim 2 is similar to claim 1 in that it too recites a hand-held analyte test instrument comprising, inter alia, a "numeric" keypad. Claim 2 also defines the recited test instrument as having a rechargeable battery pack arrangement. Conceding that Bocker does not disclose or suggest these features, the examiner looks to Cargin.

Cargin discloses a hand-held data collection terminal designed for use by delivery truck drivers who must make records of deliveries and provide delivery tickets or invoices to customers. The terminal 10 includes a display 13, a keypad 14 having a plurality of numeric, alphabetic and function keys for entering data and instructions, a rechargeable battery pack 28 and a system for charging the battery pack (see column 12, lines 3 through 60). In other embodiments (see Figures 7 through 18), the terminal includes a connector for coupling the terminal to a scanner for data collection.

In proposing to combine Bocker and Cargin to reject claim 2 (see page 6 in the answer), the examiner submits that it would have been obvious in view of Cargin to provide the Bocker instrument with (1) a rechargeable battery arrangement for the sake of convenience and (2) a numeric keypad as a data entry alternative to Bocker's bar code reader.

The appellants' contention (see pages 11 and 12 in the brief) that Bocker and Cheung would not have suggested the second of these modifications is persuasive. In short, Cargin's disclosure of a numeric keypad in a terminal designed for use by delivery truck drivers to input data relating to deliveries and invoices would not have suggested the substitution of a like keypad for the far more rudimentary operational keypad in the Bocker analyte monitor. In this regard, the only information desired to be inputted by Bocker is contained in test strip bar codes adapted to be scanned by Bocker's bar code reader 28.

Therefore, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of independent claim 2, and dependent claim 6, as being unpatentable over Bocker in view of Cargin.

We also shall not sustain standing 35 U.S.C. § 103(a) rejection of claim 5, which depends from claim 1, as being unpatentable over Bocker in view of Cargin. For the reasons set forth above, Cargin does not cure the admitted failure of Bocker

to meet the recitation in parent claim 1 of the "numerical" keypad.

III. The 35 U.S.C. § 103(a) rejection of claim 3 as being unpatentable over Davis '943 in view of Koenck and Davis '966

Davis '943 discloses a docking apparatus for a handheld data entry terminal 4 having a keypad 10, a display 12, a bar code reader, rechargeable batteries and contact pads 80. The docking apparatus 2 comprises a frame 20 for receiving the data entry terminal, contact elements 32 for engaging the contact pads 80 on the terminal, an electrical connector 76 for connecting to external means for recharging the terminal's batteries and communicating with a centralized computer system, and a circuit board 48 operatively linking the contact members 32 and the electrical connector 76. In use,

[a]s the need arises to recharge the internal batteries of . . . data entry terminal 4, or to feed data to or collect data from said data entry terminal 4, the data entry terminal 4 may be placed in a frame 20 such that the contact pads 80 . . . of data entry terminal 4 engage and depress the contact elements 32 . . . of frame 20. Since contact pads 80 and contact elements 32 are electrically conductive, the engagement of a contact pad 80 with a contact element 32 provides a completed electrical pathway such that electrical charging or electrical communication between [docking apparatus] 2 and data entry terminal 4 may be accomplished [column 4, line 66, through column 5, line 9].

The rejection of claim 3 rests on the examiner's finding (see pages 6 and 7 in the answer) that Davis '943 meets the limitations in the claim relating to the switch, the first and second data ports and the control mechanism. This finding has no reasonable basis in the fair teachings of Davis '943, and the examiner's application of Koenck and Davis '966 (see page 7 in the answer) does not rectify this evidentiary shortcoming.

Consequently, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claim 3 as being unpatentable over Davis '943 in view of Koenck and Davis '966.

IV. The 35 U.S.C. § 103(a) rejection of claim 4 as being unpatentable over Brown in view of Cheung

Brown discloses a health monitoring system comprising a data management unit 10, a handheld microprocessor-based unit 12, a blood glucose monitor 16, a modem 52 and a clearinghouse computing facility 54, with these elements being operatively associated as shown in Figure 1. The data management unit 10 and clearinghouse 54 communicate through the modem 52 to allow patient information to be sent from the data management unit to the clearinghouse and items such as system software updates to be sent from the clearinghouse to the data management unit. Brown also teaches that the clearinghouse may be used to manage the care of a number of remote patients:

[r]eferring first to FIG. 2, clearinghouse 54 receives data from a plurality of self-care microprocessor-based healthcare systems of the type shown in FIG. 1, with the individual self-care health monitoring systems being indicated in FIG. 2 by reference numeral 58. Preferably, the data supplied to clearinghouse 54 by each individual self-care health monitoring system 58 consists of "raw data," i.e., test results and related data that was stored in memory circuits of data management unit 10, without further processing by data management unit 10. For example, with respect to the arrangement shown in FIG. 1, blood glucose test results and associated data such as food intake information, medication dosage and other such conditions are transmitted to clearinghouse 54 and stored with a digitally encoded signal that identifies both the source of the information (i.e., the system user or patient) and those having access to the stored information (i.e., the system user's doctor or other healthcare professional).

As shall be recognized upon understanding the manner in which it operates, clearinghouse 54 can be considered to be a central server for the various system users (58 in FIG. 2) and each healthcare professional 60. In that regard, clearinghouse 54 includes conventionally arranged and interconnected digital processing equipment (represented in FIG. 2 by digital signal processor 57) which receives digitally encoded information from a user 58 or healthcare professional 60; processes the information as required; stores the information (processed or unprocessed) in memory if necessary; and, transmits the information to an intended recipient (i.e., user 58 or healthcare professional 60) [column 11, line 65, through column 12, line 28].

The examiner's determination (see page 8 in the answer) that Brown teaches, or would have suggested, a data management method responding to all of the limitations in claim 4 except for the one requiring each of the analyte test instruments to include a test strip port which accepts test strips for determining the

level of analyte in a sample taken from a patient is reasonable on its face and has not been specifically disputed by the appellants. In this regard, Brown does not describe the blood glucose monitors 16 in any particular detail.

Cheung discloses a digital biosensor useful for measuring the concentration of components in body fluids such as blood. The handheld unit 12 shown in Figure 2 acts on test strips in the form of sensor element cassettes 16 which are insertable into a port in the unit for analysis.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

In the present case, the combined teachings of Brown and Cheung would have suggested implementing Brown's broad teaching of a blood glucose monitor 16 with a test strip embodiment of the sort disclosed by Cheung as such is a conventional expedient in the blood monitoring art. Indeed, the Brown patent itself acknowledges as much by describing test strip monitors as available and "relatively inexpensive and relatively easy-to-use"

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(column 1, lines 39 and 40). As so modified in view of Cheung, the Brown data managing system is fully responsive to the limitations in claim 4. The appellants' arguments that the rejection is unsound because the applied references would not have suggested docking stations or glucose monitors inserted into Brown's handheld units 12 (see pages 10 and 11 in the brief) are unpersuasive as they are not commensurate with the actual scope of claim 4 which does not require these features.

Accordingly, we shall sustain the standing 35 U.S.C. § 103(a) rejection of claim 4 as being unpatentable over Brown in view of Cheung.

SUMMARY

The decision of the examiner to reject claims 1 through 6 is affirmed with respect to claim 4 and reversed with respect to claims 1 through 3, 5 and 6.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

*Charles E. Frankfort*

CHARLES E. FRANKFORT )  
Administrative Patent Judge )  
)

*John P. McQuade*

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